REMARKS

Reconsideration And Allowance Are Respectfully Requested.

Claims 1, 3, 5, 7-9, 11, 13-17, 20, 22, 24 and 26-28 are currently pending. Claims 1, 3, 5, 7-9, 11, 13-17, 20, 22, 24 and 26-28 have been amended. Claims 2, 4, 6, 10, 12, 18, 19, 21, 23 and 25 have been canceled. No new matter has been added. The present amendment is believed to neither raise new issues nor require undue consideration. As such, Applicants respectfully request that the amendment be entered and considered.

Applicant, in response to the outstanding Office Action, has addressed the rejections under 35 USC §112, most notably in claims 1, 24 and 26-28. Claim 25 has been cancelled thereby eliminating the objection under 37 CFR 1.75.

Applicant's invention, as claimed, is critically different from the cited art and apparently has been misunderstood. A brazing resist coating is distinctly different from an etching or photoresist, which is used for etching masks for structuring metal layers. The structured metal layer remains on the substrate whereas an etching or photoresist is removed.

Sakuraba et al. (US 6,054,762) discloses several etching or structuring steps each using masks made of an etching or a photoresist. The etching or photoresist must be totally removed from a structured metal layer at least after the last etching or structuring step, so that the metal surface can be plated with a surface coating thereby avoiding corrosion of the

structured metal layer and/or to allow electric components to be bonded onto the structured metal layer by a brazing or a soldering process.

The etching resist is a photosensitive material and for this reason the etching resist is also deemed a photoresist. The etching masks are made by exposing the layer of the etching or the photoresist applied to the unstructured metal layer to light on such areas where masking is required and not by exposing the layer of etching or photoresist to light on such areas where masking is not required.

Such etching process is a technique known in the industry. The etching resist material used for etching structural metal or copper layers are normally based on polyacrylates and can be removed by liquid alkaline media, for example such media containing sodium hydroxide. The etching resist material must be a material that can be removed by such alkaline material, in view of the fact that the etching is performed with an acidic media.

The brazing or soldering resist application process is completely different from the etching resistor photoresist process discussed in Sakuraba et al. Brazing or soldering resist is normally a material such as an epoxy-resin and cannot be removed by the alkaline media used during etching masking and structuring. Furthermore, the brazing resist coating is and must be left on the structured metal layer and is used for avoiding brazing or soldering material from flowing into areas such as the gap in between two structured areas during solder bonding of electronic components, where metallic brazing material cannot be accepted in order to avoid,

for example, electrical shortcuts. Therefore, the brazing resist coating provides for a border to keep the brazing or soldering material at a location where the material is needed for solder bonding.

Independent claims 1, 24 and 26 specifically state that the brazing resist coating is left on the structured metal and this limitation is crucial in that the brazing resist coating must be thick enough to avoid such layer from being dissolved by fluxing agents or materials necessary used during bonding of electrical components by soldering. Independent claims 1, 24 and 26 further clarify such clear distinction in that the brazing resist layer or at least one brazing resist layer has a thickness in an amount of at least 0.5 microns. This feature is crucial in that the brazing resist coating must be thick enough in order to avoid this layer from being dissolved by fluxing agents or materials necessary and used during bonding electrical components by soldering. Further, the thickness of the brazing resist coating or at least one brazing resist coating must not exceed 100 microns in order to make sure that the coating is elastic enough to avoid a splitting off of the coating during solder bonding or soldering of electrical components.

In summary, Sakuraba et al. does not teach either applying a brazing resist layer to a structured metal layer after structuring or after removing the mask of photo or etching resist. Nor is there any discussion or suggestion of needing a brazing resist coating on the structured metal layer or having such brazing resist coating layer with a critical thickness of between 0.5 and 100 microns. The Examiner states in the Office Action on page 6 that Sakuraba does not

explicitly teach that the at least one brazing resist coating has a thickness between 0.5 and 100 microns. However, the Examiner believes it is within the purview of one of ordinary skill in the art to apply any thickness of a brazing resist coating sufficient to protect the underlying material. Such thickness range is critical and cannot summarily be dismissed. Further, Sakuraba fails in that it does not discuss or even contemplate the process as set forth and claimed, in particular, a brazing resist coating.

If the Examiner in charge of the application wishes to have an interview to discuss this application, the undersigned is available at the Examiner's convenience.

Respectfully submitted,

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